REMARKS

Claims 6 and 18 have been amended herein. Claims 6, 8-16, and 18-22 remain pending in the above-identified application.

Specification

The specification has been amended to specify that the controller may arithmetically process data, as disclosed in original claim 7. Accordingly, the objection to the specification is improper and Applicant requests that the objection be withdrawn.

Claims 6, 8-10, 12, 13, 18, and 19 - Section 102

Applicants respectfully request reconsideration of the rejection of claims 6, 8-10, 12, 13, 18, and 19 under 35 U.S.C. § 102(e) as being anticipated by U.S. Patent No. 6,350,425 (Hoffman). As amended, each of claims 6, 8-10, 12, 13, 18, and 19 recites a substrate cleaning apparatus for cleaning a substrate comprising a substrate cleaning bath to contain therein a substrate cleaning liquid, a substrate carrier for holding the substrate when dipping the substrate in the substrate cleaning bath, measuring means for measuring hydrofluoric acid concentration in the cleaning bath, a circulation system configured to circulate the cleaning liquid from the substrate cleaning bath, through the measuring means, and back to the substrate cleaning bath during cleaning of the substrate in the substrate cleaning bath, and control means for processing a signal from a measuring means during cleaning of the substrate in the substrate cleaning bath to control the feeding of the fluid from the fluid source to the substrate cleaning bath by way of the fluid feeding means during cleaning of the substrate in the substrate cleaning bath.

Hoffman discloses a generation unit 300 for generating buffered hydrofluoric acid or ammonium fluoride. See column 9, lines 21-24 and Fig. 3. Hoffman also discloses cleaning a wafer 446 including conveying the wafer on a wafer support 448 to a deglazing station 434 to which the generation unit 436 (equivalent to generation unit 300 in Fig. 3) delivers the buffered fluid. See e.g., claim 8, column 13, lines 10-28, and Fig. 4. Hoffman fails to show a substrate cleaning apparatus for cleaning a substrate comprising a substrate cleaning bath to contain therein a substrate cleaning liquid, **a**

substrate carrier for holding the substrate when dipping the substrate in the substrate cleaning bath, **measuring means for measuring hydrofluoric acid concentration in the cleaning bath**, **a circulation system configured to circulate the cleaning liquid from the substrate cleaning bath**, through the measuring means, and back to the substrate cleaning bath **during cleaning of the substrate in the substrate cleaning bath**, and **control means for processing a signal from the measuring means during cleaning of the substrate in the substrate cleaning bath** to control the feeding of the fluid from the fluid source to the substrate cleaning bath by way of the fluid feeding means during cleaning of the substrate in the bath.

The Office Action asserts that a mixing tank 306 in the generation unit 300 of Hoffman is able to serve as a point at which substrates are processed. See page 3, lines 6-8. However, Hoffman clearly discloses that the wafers 446 are delivered to the glazing station 434 to be processed in fluid delivered to the glazing station from the generation unit 300 and not processed in the generation unit. See e.g., claim 8, Fig. 4, and column 13, lines 10-28. In other words, Hoffman plainly shows that the glazing fluid is created in a wholly separate unit (i.e., the generation unit 300) than the unit (i.e., the glazing station 434) in which the wafer 446 is glazed. Further, Hoffman discloses that fluid created in the generation unit 300 can be packaged and shipped instead of being used on-site (i.e., sent directly from the generation unit to the point of use, the glazing station 434). See column 13, lines 57-60. In addition, although Hoffman does disclose a circulation system including a pump 324 and a recycle line 338 (Fig. 3), the circulation system circulates fluid to and from the mixing tank 306 and not from the glazing station 434 (Fig. 4), which is the point at which the wafers 446 are processed. Moreover, although Hoffman does disclose a wafer support 448 and a robot 450 for delivering wafers 446 to the glazing station 434 (i.e., the point of use in Hoffman), the wafer support and robot do not deliver the wafer to the mixing tank 30 as the Office Action appears to say in lines 6-8 of page 3 by asserting that the apparatus of Hoffman can process the wafers in the mixing tank. Nowhere does Hoffman show or even suggest the mixing tank 306 being used as the process point for the wafers and actually teaches against that idea by expressly describing that the apparatus 400 is configured so that wafers are delivered to the glazing station to which fluid is received from the mixing tank

and that the fluid from the mixing tank can used to process the wafers in the glazing station on-site or packaged for use off-site.

Because Hoffman fails to show every element of claims 6, 8-10, 12, 13, 18, and 19, the rejection is improper. Accordingly, Applicants respectfully request that the rejection of claims 6, 8-10, 12, 13, 18, and 19 be withdrawn.

Claim 11 - Section 103

Applicants respectfully request reconsideration of the rejection of claim 11 under 35 U.S.C. § 103(a) as being unpatentable over Hoffman in view of U.S. Patent No. 6,156,944 (Pham) or U.S. Patent No. 5,895,639 (Swain). Because claim 11 depends from claim 6, claim 11 is allowable for at least the same reasons identified above with respect to claim 6. The secondary references do not provide or suggest the previously noted omitted elements. Accordingly, Applicants respectfully request the rejection of claim 11 be withdrawn.

CONCLUSION

As it is believed that the application is in condition for allowance, a favorable action and a Notice of Allowance are respectfully requested.

If the Examiner believes that there is any issue that could be resolved by an interview, the Examiner is respectfully requested to contact the undersigned attorney at the telephone number listed below.

Applicants believe no fee is due at this time. However, the Commissioner is hereby authorized to deduct any deficiency from or credit any overpayment to Deposit Account No. 19-3140.

Respectfully submitted,

Date: 05/22/06

Mickki D. Murray, Reg. No. 56,846
Customer No. 26263
314.259.5909